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# Blow to Security Seen in the Loss Of Titan Missile

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VANDENBERG AIR FORCE BASE, Calif., April 19 — The loss of a Titan rocket and its secret military payload here Friday appears to be a serious blow to the national security interests of the United States, according to aerospace experts outside the Government.

At worst, the experts said today, the loss of an advanced spy satellite, which is believed to have been carried by the Titan, will make the negotiating of arms control treaties with the Soviet Union more difficult. Photographs from such satellites are used to count missiles, to observe the Soviet military and to monitor compliance with arms control treaties.

Although Air Force officials will say only that the destroyed payload was secret, aerospace experts outside the Government believe it was a KH-11 photographic reconnaissance satellite that was meant to have been launched into polar orbit around the earth.

The \$65 million Titan 34D and its secret payload exploded in flames just seconds after liftoff from bluffs overlooking the Pacific Ocean at this sprawling Air Force base.

The nation now has only one KH-11 satellite in orbit, the experts said. Another KH-11 satellite, which usually operates in pairs, was lost last August when another Titan rocket exploded after liftoff here.

The KH-11's are the Cadillacs of spy satellites, with engines that can move them about in orbit and powerful cameras that can zoom in on almost any area of the earth. Their photos are beamed to ground stations instantly by electronic signals.

"It's a very serious situation," said James Bamford, author of "The Puzzle Palace," a study of the National Security Agency and the nation's system of spy satellites. "We usually have two KH-11's up there, around 150 miles up. We also have close-look satellites which are sent up for shorter periods of time and orbit at about 70 miles. They've been used since the 1950's and drop their film to the ground instead of sending it electronically."

Mr. Bamford said he did not know if there were currently any close-look satellites in orbit, saying they were used for "crises" and special situations that required an especially detailed look at objects on the ground.

"The implications of this whole explosion are very serious," he said.

"The shuttle might be out for several years and, if there's trouble as well with the Titans, then expendable rockets might also be out, which means that America's spy satellite fleet is basically grounded."

## 'Serious for Arms Control'

Other aerospace experts agreed, adding that the Titan explosion would make it more difficult for the United States to sign treaties with the Soviet Union.

"It's very serious for arms control," said an industry aerospace engineer who works extensively with the Government, who spoke on the condition he not be identified. "Our existing KH-11 has been there since 1984. And the lifetime of those satellites is usually about 1,100 days. So we're down to a single spacecraft to verify any arms accord."

"We've had other kinds of spy satellites in the past," he continued, "but they've mostly been phased out in anticipation of more advanced versions to go on the shuttle." The nation's fleet of shuttles has been grounded since the Challenger exploded on Jan. 28, killing all seven crew members.

The military spy satellites are far more advanced than civilian satellites, which have been used for general photo reconnaissance but cannot approach the precision necessary for the military's purposes.

The industry executive said that to his knowledge, the next generation spy satellite, the KH-12, was meant to be launched only on the space shuttle, possibly this year. He said that if did not know if it could be modified to be launched by an unmanned rocket. Such questions, he said, were probably getting close attention by the White House National Security Council and the Pentagon's National Reconnaissance Office, a top-secret group that coordinates the nation's programs for surveillance from space.

"This means trouble for anyone who hoped we could get some kind of arms control agreement," he said. "Without these satellites, there's no confidence we can monitor the Soviets." He added that the memory of the Titan explosion, even once the satellite is replaced, might have a chilling effect on arms control negotiators, who may fear that verification will be hindered.

## Not Vulnerable to Attack

Aerospace experts said today that the loss of the secret payload did not mean the United States was vulnerable to surprise attack. In addition to the single orbiting KH-11, the nation has a host of other satellites to monitor the Soviet Union, they said.

"Spy satellites are just one element," Mr. Bamford said. "We also have early-warning satellites and also electronic intelligence satellites that can pick up all kinds of signals. They would give warning of any kind of Soviet attack."

Other experts said today that the Titan explosion on Friday was part of a long-standing pattern of problems with the rocket.

"The Titan missile has been plagued with problems," said Adm. Gene La Rocque, director of the Center for Defense Information, a private, nonprofit organization based in Washington. He noted that the basic Titan is an old liquid-fueled strategic missile, though the one that exploded Friday also had two solid-fuel boosters.

"We're trying to eliminate them from the field," he said. "The last time I looked there were 32 of them still in use, and that number is going down. They carried a nine-megaton nuclear warhead. They would have been just great but the liquid-fuel made us uncomfortable." The vast majority of the nation's strategic missiles are powered by solid-fuel rockets.

## Inquiry Under Way

Meanwhile, a secret inquiry was proceeding here today into what caused the Titan explosion, Air Force officials said.

"What normally happens is that the debris are impounded, and the photographs of the launch and the telemetry are impounded," said Sgt. Virgil Short, a Vandenberg spokesman. "Because it was a classified launch, the investigation is classified. When we do an investigation like this, we don't announce the causes of the accident."

He added that any impact the explosion would have on the scheduling of future Titan launchings was also classified as secret.

"In any event," he added, "we really don't know what it would be right now because it's too early in the investigation to make any assumptions." Sgt. Fred Bolinger, another Vandenberg spokesman, said that cleanup efforts were under way at the site and that a board had been established to investigate the explosion. He said that Col. Nathaniel Lindsey, would serve as

president of the board.

Air Force officials said that more than 70 people were treated for various injuries after the blast Friday, mostly

for eye irritation. All but one of the victims were treated and released from hospitals Friday. One was hospitalized overnight and released today.